

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A solution film-forming method for producing a cellulose acylate film comprising steps of:

(a) preparing a cellulose acylate solution;

(b) filtering the cellulose acylate solution by a cake layer supported by a filtration support, the cake layer being formed by pre-coating a filter aid to the support; and

(c) forming a film from the cellulose acylate solution obtained in step (b);

wherein said method further comprises, prior to the filtering step, a step of precoating the filtration support in a thickness of from ~~0.4~~ 0.5 to 10 mm using a precoat liquid in which the filter aid is dispersed, wherein the filter aid has an average particle size in a range of from 1 to 150 μm ;

wherein:

(i) the cellulose acylate film produced by said method is used for a liquid crystal display device;

(ii) absolute filtration accuracy is 0.01 mm or higher;

(iii) a number of bright point defects observed under crossed-Nicol having a size of 20 μm or more is 0 defect/5 cm^2 , 10 μm or more is 10 defects/5 cm^2 or less, and 5 μm or more is 10 defects/5 cm^2 or less, a number being an average of 5 cm^2 in a width direction.

2. (previously presented): The solution film-forming method according to claim 1, wherein the filter aid has a composition including SiO₂ in 50% or more.

3. (original): The solution film-forming method according to claim 1, wherein the filter aid is a cellulose-based aid.

4. (original): The solution film-forming method according to claim 1, wherein the filter aid is a mixture of a cellulose-based aid and another aid including SiO₂ in 50% or more.

5. (original): The solution film-forming method according to claim 1, wherein the filter aid comprises a mixture of two or more filter aids.

6. (canceled).

7. (original): The solution film-forming method according to claim 1, wherein the filter aid has a standard deviation of particle size of 0.5 times an average particle size or smaller.

8. (original): The solution film-forming method according to claim 1, wherein the filter aid has a bulk density in a range of from 0.01 to 0.8 g/cm³.

9. (original): The solution film-forming method according to claim 1, wherein the filter aid is added to the cellulose acylate solution in an amount of from 0.01 to 10% by weight.

10. (canceled).

11. (previously presented): The solution film-forming method according to claim 1, wherein the precoat liquid has a terminal velocity of the filter aid in a range of from 10⁻⁴ to 1 cm/s.

12. (previously presented): The solution film-forming method according to claim 1, wherein the filtering step is carried out through a filtration support, the method further

comprising, prior to the filtering step, a step of precoating the filtration support in a mass of from 0.1 to 5 kg/m² using a precoat liquid in which the filter aid is dispersed.

13. (original): The solution film-forming method according to claim 12, wherein the precoat liquid has a terminal velocity of the filter aid in a range of from 10⁻⁴ to 1 cm/s.

14. (previously presented): The solution film-forming method according to claim 1, wherein a flow rate in the filtering step is in a range of from 0.1 to 50 cm/hr.

15. (previously presented): The solution film-forming method according to claim 1, wherein initial pressure difference in the filtering step is in a range of from 0.01 to 1 MPa.

16. (previously presented): The solution film-forming method according to claim 1, wherein filtration pressure in the filtering step is in a range of from 0.01 to 4 MPa.

17. (previously presented): The solution film-forming method according to claim 1, wherein pressure difference in the filtering step is in a range of from 0.01 to 3 MPa.

18. (previously presented): The solution film-forming method according to claim 1, wherein a thickness of a cake layer formed in the filtering step is in a range of from 0.1 to 80 mm.

19. (previously presented): The solution film-forming method according to claim 1, wherein the filtering step is carried out in a pressure condition where the cellulose acylate solution does not boil and at a temperature 20°C lower than a boiling point of the cellulose acylate solution at normal pressure or higher.

20. (previously presented): The solution film-forming method according to claim 1, wherein the filtering step comprises steps of:

(i) dispersing the filter aid in the cellulose acylate solution at a temperature in a range of from a boiling point of the cellulose acylate solution at normal pressure to a temperature 20°C lower than the boiling point, and

(ii) filtering the filter-aid dispersed cellulose acylate solution obtained in step (i) having a saturation of dissolved air bubble of 90% or lower.

21. (previously presented): The solution film-forming method according to claim 1, wherein the filtering step comprises steps of:

(i) dispersing the filter aid in the cellulose acylate solution, and

(ii) filtering the filter-aid dispersed cellulose acylate solution obtained in step (i) at a temperature lower than that of step (i).

22. (previously presented): The solution film-forming method according to claim 1, wherein a concentration of the filter aid in the cellulose acylate solution is 10,000 particles/cm³ or less after the filtering step.

23. (previously presented): The solution film-forming method according to claim 1, further comprising, prior to step (c), a step of post-filtering the cellulose acylate solution after the filtering step through a filter having an absolute filtration accuracy of from 2 to 50 μm.

24. (previously presented): The solution film-forming method according to claim 1, wherein the filtering step is carried out in a filter machine,

the method further comprising, following the filtering step, a step of backwashing the filter machine by supplying a cleaning solvent in circulation, in a pressure condition where the cleaning solvent does not boil, after being heated to a temperature 20°C lower than a boiling point of the cellulose acylate solution or higher.

25. (original): The solution film-forming method according to claim 24, wherein the cleaning solvent is a non-chlorine organic solvent.

26. (previously presented): The solution film-forming method according to claim 1, wherein the filtering step is carried out through a filtration support, the method further comprising, following the filtering step, a step of discharging a cake formed on the filtration support as a slurry having a concentration in a range of from 1 to 50 kg/m³.

27. (original): The solution film-forming method according to claim 26, wherein the slurry is reused as at least one of a precoat liquid and a body feed liquid.

28. (previously presented): The solution film-forming method according to claim 26, further comprising, following the discharging step, steps of:

(i) separating the discharged slurry of the cake to a solvent and the filter aid, and

(ii) burning the filter aid at 400°C or higher for reuse.

29. (previously presented): The solution film-forming method according to claim 28, further comprising, following the burning step, a step of mixing the burned filter aid with a virgin filter aid for use.

30. (previously presented): The solution film-forming method according to claim 1, wherein the forming step is carried out by co-casting.

31. (withdrawn): A cellulose acylate film prepared in the solution film-forming method according to claim 1.

32. (withdrawn): The cellulose acylate film according to claim 31, wherein a number of bright point defects observed under crossed-Nicol having a size of 20 μm or more is 0 defect/5

cm², 10 μm or more is 10 defects/5 cm² or less, and 5 μm or more is 10 defects/5 cm² or less, a number being an average of five samples of 5 cm² in a width direction.